

511, 997

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

14 OCT 2004

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number
WO 03/090292 A2(51) International Patent Classification⁷: H01MNorthamptonshire NP16 6DP (GB). KEVILL, Dennis
[/GB] (GB). LOYNS, Andrew, Charles [/GB] (GB).
KURIAN, Raju [/GB] (GB).

(21) International Application Number: PCT/US03/11719

(74) Agent: MYERS BIGEL SIBLEY & SAJOVEC, P.A.;
P.O. Box 37428, Raleigh, NC 27627 (US).

(22) International Filing Date: 15 April 2003 (15.04.2003)

(81) Designated States (national): CN, JP, US.

(25) Filing Language: English

(84) Designated States (regional): European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(26) Publication Language: English

(30) Priority Data:
0209227.8 20 April 2002 (20.04.2002) GB

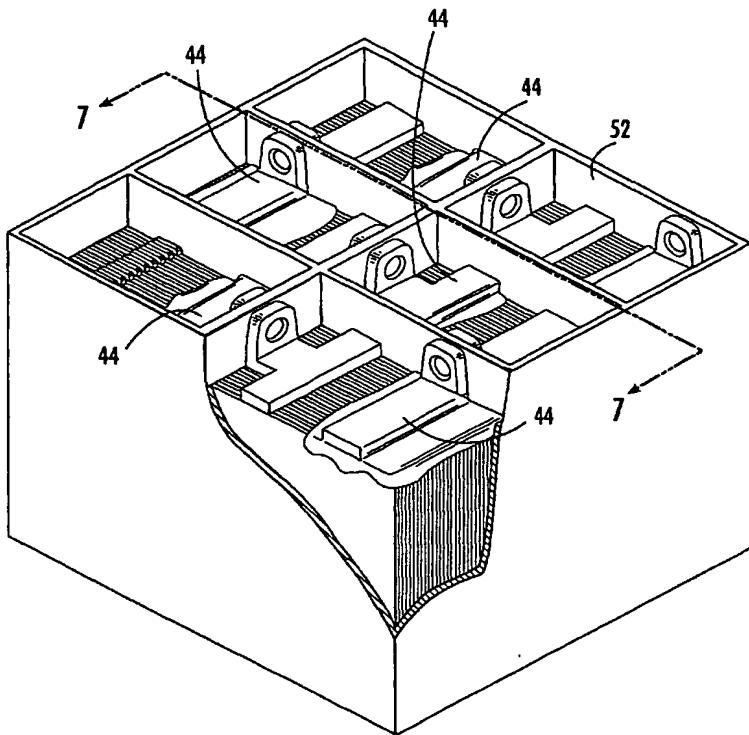
(71) Applicant (for all designated States except US): ENER-

SYS EUROPEAN HOLDINGS CO. [US/US]; 2366
Bernville Road, Reading, PA 19605 (US).
Published:
— without international search report and to be republished
upon receipt of that report

(72) Inventors; and

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.(75) Inventors/Applicants (for US only): KNIGHT, Roger,
James [GB/GB]; No. 3 St. Lawrence Park, Chepstow,

(54) Title: BATTERY WITH VIBRATION-RESISTANT JOINT BETWEEN POSITIVE ELECTRODE AND CURRENT CARRYING STRAP



(57) Abstract: A method of manufacturing a battery includes as an initial step providing a cell for a battery having alternating positive and negative electrode plates, wherein each of the electrode plates is separated by an electrically insulative separator layer. Each of the positive and negative electrode plates includes a projecting tab extending from an adjacent upper portion thereof, the projecting tabs of the positive plates being generally aligned, and the projecting tabs of the negative plates being generally aligned. Next, the method comprises attaching a conductive connecting strap to the projecting tabs of the positive and negative plates. The method then comprises applying a cap material onto the connecting positive strap and allowing the cap material to spread and drip to the exposed portions of the projecting tabs and the adjacent upper portions of the negative and positive plates and separator material. The cap material is allowed to harden to provide a cap attached to the projecting tabs and the adjacent upper portions of the positive plates and negative plates and separator material.

WO 03/090292 A2